

PROSPECTUS



**873,852 Shares of Common Stock
Issuable upon Exercise of Warrants**

This prospectus relates to the resale, from time to time, by the selling stockholders identified in this prospectus under the caption "Selling Stockholders," of up to 873,852 shares of our common stock they may acquire upon the exercise of warrants issued on June 10, 2020, or the June 2020 Warrants. We issued the June 2020 Warrants to the selling stockholders in a private placement financing we completed in June 10, 2020. We are registering the applicable shares of our common stock to provide the selling stockholders with freely tradable securities. The registration of the shares of our common stock covered by this prospectus does not necessarily mean that any shares of our common stock will be sold by any of the selling stockholders, and we cannot predict when or in what amounts any of the selling stockholders may sell any of our shares of common stock offered by this prospectus. The prices at which the selling stockholders may sell the shares of our common stock will be determined by prevailing market prices or at prices that may be obtained in negotiated transactions.

We are not selling any shares of our common stock under this prospectus and will not receive any proceeds from any sale or disposition by the selling stockholders of the shares of our common stock covered by this prospectus. However, we will receive proceeds in connection with the applicable exercise price of the June 2020 Warrants to purchase shares of our common stock, which, if exercised in cash with respect to all June 2020 Warrants, would result in gross proceeds to us of approximately \$4.5 million, but under certain circumstances such warrants may be exercised via cashless exercise. In addition, we will pay all fees and expenses incident to the registration of the resale of shares of our common stock under this prospectus. The selling stockholders from time to time may offer and sell the shares of our common stock held by them directly or through one or more underwriters, broker-dealers or agents on terms to be determined at the time of sale, as described in more detail in this prospectus under "Plan of Distribution." No shares of our common stock may be sold without delivery of this prospectus describing the method and terms of the offering of such shares.

Our common stock is listed and trades on The Nasdaq Capital Market under the symbol "EKSO." The last reported sale price of our common stock on The Nasdaq Capital Market on June 30, 2020 was \$8.40 per share.

Investing in our securities involves a high degree of risk. Before making any investment decision, you should carefully review and consider all the information in this prospectus and the documents incorporated by reference herein and therein, including the risks and uncertainties described under "Risk Factors" beginning on page 7 of this prospectus and the risk factors incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is July 13, 2020.

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ABOUT THIS PROSPECTUS

This prospectus relates to the resale by the selling stockholders identified in this prospectus under the caption “Selling Stockholders,” from time to time, of up to an aggregate of 873,852 shares of our common stock, par value \$0.001 per share, issuable upon exercise of certain common stock purchase warrants. As described below under “Prospectus Summary—Private Placement Offering,” the shares of our common stock registered by this prospectus are issuable upon exercise of June 2020 Warrants to purchase up to 873,852 shares of our common stock for an exercise price of \$5.18 per share issued on June 10, 2020, all of which are exercisable by the selling stockholders. We will not receive any proceeds from the sale of shares of common stock offered hereby by the selling stockholders. The registration statement containing this prospectus, including the exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus. The registration statement, including the exhibits, can be read on the SEC’s website or at the SEC offices mentioned under the heading “Where You Can Find More Information.”

You should rely only on the information contained or incorporated by reference in this prospectus. We are not selling any shares of our common stock under this prospectus, and we have not authorized any other person to provide you with different information. If anyone provides you with different information, you should not rely on it. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus and the documents incorporated by reference herein and therein are accurate only as of the date such information is presented. Neither the delivery of this prospectus nor any sale made in connection with this prospectus, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus or that the information contained by reference to this prospectus is correct as of any time after its date.

This prospectus may be supplemented from time to time to add, update or change information in this prospectus. Any statement contained in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in such prospectus modifies or supersedes such statement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus.

Unless otherwise expressly stated or the context otherwise requires, references in this prospectus to (i) “Ekso Bionics,” “the Company,” “we,” “us,” and “our” refer to Ekso Bionics Holdings, Inc., a Nevada corporation, and (ii) “common stock” refer to shares of the Company’s common stock, \$0.001 par value per share. When we refer to “you,” we mean the potential holders of our securities.

This prospectus and the information incorporated by reference herein contain references to our trademarks and to trademarks belonging to other entities, which are protected under applicable intellectual property laws. Solely for convenience, our trademarks and tradenames referred to in this prospectus supplement appear without the ® and ™ symbol, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and tradenames. All trademarks, service marks and trade names included or incorporated by reference into this prospectus are the property of their respective owners.

FORWARD-LOOKING STATEMENTS

This prospectus, as well as the information incorporated by reference herein and therein, contain certain statements that constitute “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 and releases issued by the SEC and within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Exchange Act of 1934, as amended (the “Exchange Act”). All statements, other than statements of historical facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “predict,” “potential,” “positioned,” “seek,” “should,” “target,” “will,” “would” and other similar expressions that are predictions or indicate future events and future trends, or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these identifying words.

Forward-looking statements included or incorporated by reference in this prospectus include, for example, statements about:

- our ability to obtain adequate financing to fund operations and to develop or enhance our technology;
- the scope, scale and duration of the impact of outbreaks of a pandemic disease, such as COVID-19 (coronavirus);
- our ability to obtain or maintain regulatory approval to market our medical devices;
- our ability to complete clinical trials on a timely basis and that completed clinical trials will be sufficient to support commercialization of our products;
- the anticipated timing, cost and progress of the development and commercialization of new products or services, and improvements to our existing products, and related impacts on our profitability and cash position;
- our ability to effectively market and sell our products and expand our business, both in unit sales and product diversification;
- our ability to achieve broad customer adoption of our products and services;
- our ability to achieve anticipated synergies and benefits of, and maintain our current and future collaborations, joint ventures or partnerships;
- existing or increased competition;
- rapid changes in technological solutions available to our markets;
- volatility with our business, including long and variable sales cycles, which could have a negative impact on our results of operations for any given quarter or fiscal year;
- changes in our domestic or international sales and operations;
- our ability to obtain or maintain patent protection for our intellectual property;
- the scope, validity and enforceability of our and third party intellectual property rights;
- significant government regulation of medical devices and the healthcare industry;
- our ability to unwind our role with the joint-venture in China in accordance with regulatory requirements;
- outbreaks of a pandemic disease, such as COVID-19 (coronavirus);
- our customers’ ability to get third party reimbursement for our products and services associated with them; our failure to implement our business plan or strategies;
- our early termination of leases, difficulty filling vacancies or negotiating improved lease terms;
- our ability to retain or attract key employees;

- stock volatility or illiquidity;
- our ability to maintain adequate internal controls over financial reporting;
- the use of proceeds from, the timing of, and our ability to successfully complete this offering; and
- overall economic and market conditions.

These statements are based on current expectations, assumptions, assessments, estimates, forecasts and projections about our business and the industry in which we operate made by our management in light of its experience and its perception of historical trends, current conditions, expected future developments and other factors our management believes to be appropriate. These forward-looking statements are subject to a number of known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this prospectus may turn out to be inaccurate. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under “Risk Factors” and elsewhere in this prospectus, and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, as amended, and our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2020 as such risk factors may be amended, updated or modified periodically in our reports filed with the SEC, and the financial data and related notes and the reports incorporated by reference in this prospectus, for further information on these and other risks affecting us.

Potential investors are urged to consider these factors carefully in evaluating the forward-looking statements. These forward-looking statements speak only as of the date hereof and as of the dates indicated in these statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future, except as required by law. Given these risks and uncertainties, you are cautioned not to rely on such forward-looking statements as predictions of future events. You should, however, review the factors and risks we describe in the reports we will file from time to time with the Securities and Exchange Commission (the “SEC”) after the date of this prospectus. See “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference.”

PROSPECTUS SUMMARY

This summary highlights certain information about us, this offering and the other information appearing elsewhere in this prospectus and in the documents we incorporate by reference herein. This summary is not complete and does not contain all of the information that you should consider before investing in our securities. To fully understand this offering and its consequences, you should read this entire prospectus carefully, including the information set forth under the caption “Risk Factors” on page 6 in this prospectus and under similar captions in the documents incorporated by reference herein, before making an investment decision.

Overview

We design, develop and sell exoskeleton technology to augment human strength, endurance and mobility. Our exoskeleton technology serves multiple markets and can be used both by able-bodied persons as well as by persons with physical disabilities. We have sold, rented or leased devices that (i) enable individuals with neurological conditions affecting gait (stroke and spinal cord injury) to rehabilitate, and in some cases, to walk again, (ii) assist individuals with a broad range of upper extremity impairments, and (iii) allow industrial workers to perform difficult repetitive work for extended periods.

Our EksoVest is an upper body exoskeleton that elevates and supports a worker’s arms to assist them with tasks ranging from chest height to overhead. In 2020, we are focusing on increasing sales of the EksoVest and the support arm, EksoZeroG, by pursuing alternative channels, such as rental agreements with construction equipment and heavy tool providers and working with automotive and related manufacturers to roll out our product(s) globally within their assembly operations. In addition, we believe that there is additional mid-to-long-term potential in the industrial markets, and accordingly, we will continue our development efforts to expand our EksoWorks product offerings.

We believe the commercial opportunity for exoskeleton technology adoption is accelerating as a result of recent advancements in material technologies, electronic and electrical engineering, control technologies, and sensor and software development. Taken individually, many of these advancements have become ubiquitous in peoples’ everyday lives. We believe that we have learned how to integrate these existing technologies and wrap the result around a human being efficiently, elegantly and safely, supported by an industry-leading intellectual property portfolio. We further believe that we can do so across a broad spectrum of applications, from persons with lower limb paralysis to able-bodied users.

Additional details of these programs and related strategic agreements are contained in our Annual Report on Form 10-K for the year ended December 31, 2019, as amended, and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020.

Private Placement Offering

On June 7, 2020, we entered into a securities purchase agreement with certain purchasers, each of whom is an institutional and accredited investor, and on June 10, 2020, or the closing date, we completed our offer and sale to certain accredited investors of (i) 1,747,704 shares of our common stock at a purchase price of \$4.5145 per share, which were sold in a registered direct offering, and (ii) June 2020 Warrants to purchase up to an aggregate of 873,852 shares of our common stock, representing 50% of the shares of the common stock purchased in the registered direct offering, which were sold in a concurrent private placement. The June 2020 Warrants had an initial exercise price of \$5.18 per share (subject to adjustment as set forth therein), were immediately exercisable and expire five and one-half years from the issue date, or on December 10, 2025. All of the June 2020 Warrants contain certain ownership limitations that may restrict their exercise, as described under the caption “Selling Stockholders” in this prospectus. In addition, all such warrants are exercisable on a cashless basis if there is no effective registration statement registering, or no current prospectus available for, the resale of the shares of common stock underlying the June 2020 Warrants by the holder. Pursuant to the stock purchase agreement, we agreed to file this registration statement on Form S-1 with respect to the resale by the purchasers of the shares of common stock underlying the June 2020 Warrants issuable upon exercise of the June 2020 Warrants within 30 calendar days of the date of the securities purchase agreement, or by July 7, 2020, and to use commercially reasonable efforts to cause such registration statement to become and remain effective. Only the 873,852 shares issuable upon exercise of the June 2020 Warrants described in clause (ii) above are registered for resale pursuant to this prospectus.

Corporate Information

Our corporate headquarters are located at 1414 Harbour Way South, Suite 1201, Richmond, California. Our telephone number is (510) 984-1761, and our website address is www.eksobionics.com. Our official Twitter account is @EksoBionics. The information on or accessible through our website or our Twitter account does not constitute part of this prospectus supplement or the accompanying prospectus and should not be relied upon in connection with making any investment in our securities.

On March 24, 2020, we effected a 1-for-15 reverse split of our common stock. As a result of the reverse stock split, every 15 shares of issued and outstanding common stock were converted into one share of issued and outstanding common stock. We previously effected a 1-for-7 reverse stock split on May 4, 2016. Unless otherwise indicated, all references to share and per share amounts in this prospectus supplement, reflect the reverse stock splits. Our common stock is listed on Nasdaq Capital Market under the symbol "EKSO."

THE OFFERING

Shares of common stock being offered by the selling stockholders:	Up to 873,852 shares of common stock issuable upon exercise of June 2020 Warrants. See "Selling Stockholders" beginning on page 10 of this prospectus.
Use of proceeds:	All proceeds from the sale of the shares of common stock under this prospectus will be for the account of the selling stockholders. We will not receive any proceeds from the sale of our shares of common stock offered pursuant to this prospectus. Any net proceeds received by us from the exercise of the June 2020 Warrants will be used for general corporate purposes, which may include acquisitions, research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs. See the section entitled "Use of Proceeds" in this prospectus.
Nasdaq Capital Market symbol:	EKSO
Listing:	Our common stock is listed and trades on The Nasdaq Capital Market. There is no established trading market for the June 2020 Warrants and we do not intend to list such warrants on any exchange or other trading or quotation system.
Dividend policy:	We do not anticipate paying any cash dividends on our common stock in the foreseeable future.
Risk factors:	Investing in our securities involves a high degree of risk. Before you decide to invest in our common stock, you should carefully read this prospectus in its entirety and carefully consider the risks and uncertainties described in "Risk Factors" beginning on page 6 of this prospectus and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, as amended, and our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2020, as such risk factors may be amended, updated or modified periodically in our reports filed with the Securities and Exchange Commission (the "SEC"), and the financial data and related notes and the reports incorporated by reference herein and therein.

RISK FACTORS

Investing in shares of our common stock involves significant risks. You should carefully consider the specific risks described below, as well as the other information contained in this prospectus and the other documents incorporated by reference, before making an investment decision. Please see the risk factors under the heading “Risk Factors” in our most recent Annual Report on Form 10-K, as amended, and as revised or supplemented by our Quarterly Reports on Form 10-Q filed with the SEC since the filing of our most recent Annual Report on Form 10-K, each of which are on file with the SEC and are incorporated by reference in this prospectus. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus. See the sections of this prospectus entitled “Where You Can Find More Information” and “Incorporation of Certain Documents By Reference.” Any of the risks we describe below or in the information incorporated herein by reference in this prospectus could cause our business, financial condition or operating results to suffer. The market price of our common stock could decline if one or more of these risks and uncertainties develop into actual events. You could lose all or part of your investment.

Risks Related to this Offering

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share that you pay for the shares offered by this prospectus, and investors purchasing shares or other securities in future offerings could have rights superior to existing stockholders. A significant portion of our total outstanding shares are eligible to be sold into the market, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a significant number of shares of our common stock in the public markets, or the perception that such sales could occur, could depress the market price of our common stock.

Sales of a substantial number of shares of our common stock, or other equity-related securities in the public markets, or the perception that such sales could occur, could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities. We have registered for sale shares of common stock issuable from time to time upon the exercise of certain outstanding warrants to purchase common stock, including: (i) warrants to purchase 106,896 shares of common stock with an exercise price of \$41.25 per share, expiring on December 23, 2020 (the “2015 Warrants”), (ii) warrants to purchase 444,444 shares of common stock with an exercise price of \$3.52 per share, expiring on May 24, 2024 (the “May 2019 Warrants”), (iii) warrants to purchase 51,836 shares of common stock with an exercise price of \$8.44, expiring on December 18, 2025 (the “December 2019 Placement Agent Warrants”) and (iv) warrants to purchase 555,763 shares of common stock with an exercise price of \$8.10, expiring on June 21, 2025 (the “December 2019 Warrants” and, together with the 2015 Warrants, the May 2019 Warrants, and the December 2019 Placement Agent Warrants, the “Registered Warrants”). Assuming that all the Registered Warrants are exercised in full, based upon the shares outstanding as of March 31, 2020, we will have outstanding an aggregate of 7,002,381 shares of common stock, assuming no exercise of outstanding stock options, no settlement of restricted stock units, no exercises of any other warrants to purchase our common stock and no other sales or issuances of our common stock. A substantial majority of the outstanding shares of our common stock are, and all of the shares sold upon exercise of the Registered Warrants will be, freely tradable without restriction or further registration under the Securities Act, unless these shares are owned or purchased by “affiliates” as that term is defined in Rule 144 under the Securities Act.

In addition, we have also registered all of the shares of common stock that we may issue pursuant to the exercise of outstanding stock options and settlement of restricted stock units granted under our Amended and Restated 2014 Equity Incentive Plan, or 2014 Incentive Plan, and all of the shares of common stock that we may issue under our Amended and Restated 2014 Equity Incentive Plan Employee Stock Purchase Plan, or ESPP. As of March 31, 2020, 349,215 shares of our common stock were reserved for issuance of future awards under our 2014 Incentive Plan and 500,000 shares of common stock were reserved for issuance under our ESPP. As a result, these shares can be freely sold in the public market upon issuance, subject to restrictions related to affiliate sales under the securities laws. Additionally, as of March 31, 2020, 13,333 shares of common stock were issuable upon the exercise of outstanding warrants other than the Registered Warrants at an exercise price of \$22.50 per share. These shares will only be freely tradable after issuance if registered in the future under the Securities Act or in reliance on any available exemptions from the registration requirement of the Securities Act.

Further, the May 2019 Warrants contain price-based anti-dilution adjustment provisions. Future anti-dilution adjustments to such warrants may result in substantial additional dilution to existing stockholders and may depress the market price of our common stock. The issuance of the shares of common stock underlying these warrants, or perception that issuance may occur, will have a dilutive impact on other stockholders and could have a material negative effect on the market price of our common stock.

We do not currently intend to pay dividends on our common stock, and any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

At the present time, we intend to use available funds to finance our operations. Accordingly, while payment of dividends rests within the discretion of our board of directors (subject to any contractual restrictive covenants, such those in our loan agreement with the Western Alliance Bank), we have no current intention of paying any such dividends in the foreseeable future. Any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

Risks Related to our Business

The recently announced Committee on Foreign Investment in the United States determination requires us to terminate our China JV, which will adversely impact our ability to expand operations globally and in particular, in China.

On January 30, 2019, we and our wholly-owned subsidiary, Ekso Bionics, Inc. (“Ekso US”), entered into an agreement with Zhejiang Youchuang Venture Capital Investment Co., Ltd (“ZYVC”) and another partner (collectively, the “JV Partners”), as amended by the Amendment to the Joint Venture Agreement, dated April 30, 2019 (as amended, the “JV Agreement”) to establish Exoskeleton Intelligent Robotics Co. Limited (the “China JV”), a Chinese limited liability company designed to develop and serve the exoskeleton market in China and other Asian markets and to create a global exoskeleton manufacturing center in the Zhejiang Province of China. In connection with the China JV, the JV Partners and their affiliates agreed to purchase an aggregate of 204,499 shares of our common stock at a price per share equal to \$24.45, for aggregate proceeds to us of \$5.0 million.

As previously disclosed, following U.S. governmental inquiries regarding the China JV, the Company and the China JV formally submitted a joint voluntary notice to Committee on Foreign Investment in the United States (“CFIUS”) in December 2019 to review the transaction. CFIUS subsequently inquired about our legacy work for the U.S. government as well as technology transfers and other aspects of the China JV and, in February 2020, imposed interim measures to mitigate identified concerns pending completion of its investigation. These measures temporarily suspended the Company’s contributions to the China JV and other integration activities for the China JV.

On May 19, 2020, we received notice from CFIUS in connection with its review of the Company’s and the JV Partners’ investment the China JV. The notice states that CFIUS’s prior national security concerns regarding the JV could not be mitigated and, in connection with its determination, CFIUS presented the Company and the JV Partners with a draft National Security Agreement (“NSA”), which will, among other things, require the termination of the Company’s role with the China JV. The Company intends to work cooperatively with the JV Partners and CFIUS to finalize the terms of the NSA. In the event the parties cannot agree on the NSA’s terms, CFIUS will refer the matter to the President of the United States, who very likely will order the termination of the China JV and the divestment of the shares acquired in connection with the China JV, per the President’s authority under the Defense Production Act.

Although the termination of the China JV is not expected to have a material impact on the Company’s operations during the remainder of 2020, if the Company is unable to efficiently identify and partner with other global manufacturing sources and Asia-based distributors, we may not be able to reduce the cost of manufacturing our products or increase sales in Asia in a cost-effective manner, which could have a material adverse effect on our financial results in future periods.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of our common stock issuable upon exercise of the June 2020 Warrants to purchase shares of our common stock by the selling stockholders from time to time pursuant to this prospectus. The proceeds from the offering are solely for the account of the selling stockholders. See "Selling Stockholders."

We will, however, receive proceeds from any cash exercise of the June 2020 Warrants. If the June 2020 Warrants were exercised in cash with respect to all of the 873,852 shares of common stock subject thereto, we would receive gross proceeds of approximately \$4.5 million. We cannot predict when or if the June 2020 Warrants will be exercised, and it is possible that such warrants may expire and never be exercised.

Any net proceeds received by us from the exercise of the June 2020 Warrants will be used for general corporate purposes, which may include acquisitions, research and development activities, capital expenditures, selling, general and administrative costs, facilities expansion, and to meet working capital needs. We expect from time to time to evaluate the acquisition of businesses, products and technologies for which a portion of the net proceeds may be used.

This represents our best estimate of the manner in which we will use any net proceeds we receive from the exercise of the June 2020 Warrants based on the status of our business, but we have not reserved or allocated amounts for specific purposes and we cannot specify with certainty how or when we would use any net proceeds. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the amount and timing of the proceeds received from the exercise of the June 2020 Warrants and progress with the achievement of our corporate goals. Expenditures will also depend upon the establishment and maintenance of manufacturing and supply chains, the availability of additional financing and other factors.

We will have broad discretion in the application of any net proceeds we receive, and we could use any such proceeds for purposes other than those currently contemplated. Pending the use of the net proceeds from this offering as described above, we may invest the net proceeds in a variety of capital preservation investments, including short- and intermediate-term, interest-bearing obligations, investment-grade instruments or U.S. government securities. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of shares of our common stock.

SELLING STOCKHOLDERS

This prospectus covers an aggregate of up to 873,852 shares of our common stock that may be sold or otherwise disposed of by the selling stockholders identified herein. Such shares are issuable to the selling stockholders upon the exercise of June 2020 Warrants we issued and sold to the selling stockholders in a private placement transaction, as described above under “Prospectus Summary—Private Placement Offering.”

When we refer to the selling stockholders in this prospectus, we mean those persons listed in the table below, as well as the permitted transferees, pledgees, donees, assignees, successors and others who later come to hold any of the selling stockholders’ interests other than through a public sale.

The selling stockholders may from time to time offer and sell pursuant to this prospectus any or all of the shares of common stock set forth in the following table. There is no requirement for the selling stockholders to sell their shares, and we do not know when, or if, or in what amount the selling stockholders may offer the shares of common stock for sale pursuant to this prospectus.

The selling stockholders identified below may have sold, transferred or otherwise disposed of some or all of their shares since the date on which the information in the following table is presented in transactions exempt from or not subject to the registration requirements of the Securities Act. Information concerning the selling stockholders may change from time to time and, if necessary, we will supplement this prospectus accordingly. We are unable to confirm whether the selling stockholders will in fact sell any or all of their shares of common stock.

To our knowledge and except as noted below, none of the selling stockholders has, or within the past three years has had, any material relationships with us or any of our affiliates.

Name of Selling Stockholder ⁽¹⁾	Number of Shares of Common Stock Owned Prior to Offering ⁽²⁾	Maximum Number of Shares of Common Stock to be Sold Pursuant to this Prospectus ⁽³⁾	Number of Shares Owned After Offering	Percent of Shares of Common Stock Owned After Offering (%) ⁽⁴⁾
Anson Investments Master Fund LP ⁽⁵⁾	499,109	276,886	222,223	2.56
Armistice Capital Master Fund Ltd. ⁽⁶⁾	653,414	320,080	333,334	3.84
Intracostal Capital, LLC ⁽⁷⁾	276,886	276,886	—	—

* Less than 1%

- (1) The information in this table and the related notes is based upon information supplied by the selling stockholders, including reports and amendments thereto filed with the SEC on Schedules 13G.
- (2) Represents the total number of shares of our common stock owned by or issuable to the relevant selling stockholder as of the date of this prospectus, without regard to ownership limitations set forth in the applicable agreements or other documents relating to such shares and without regard to initial exercise or conversion dates of exercisable or convertible securities owned by such selling stockholder, including (i) all of the shares offered by this prospectus, and (ii) to our knowledge, all other securities held by such selling stockholder as of the date of this prospectus.
- (3) Assumes that none of the June 2020 Warrants that are exercisable for the shares of our common stock offered by this prospectus have been sold or otherwise transferred prior to the date of this prospectus in transactions exempt from the registration requirements of the Securities Act. All June 2020 Warrants contain certain beneficial ownership limitations, which provide that a holder of the June 2020 Warrants will not have the right to exercise any portion of its June 2020 Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to such exercise, provided that upon at least 61 days prior notice to us, a holder may increase or decrease such limitation up to a maximum of 9.99% of the number of shares of common stock outstanding. However, the number of shares of common stock reflected in this column as owned by each selling stockholder does not take into account such beneficial ownership limitations.

- (4) The percentage of beneficial ownership is based on 7,811,103 shares outstanding as of July 1, 2020, plus the 873,852 shares issuable upon exercise of the June 2020 Warrants, assuming full exercise of such warrants. The number of shares of common stock reflected in this column as owned by each selling stockholder assumes that (a) all shares to be sold in this offering are sold, and (b) after the date of this prospectus and prior to completion of this offering, none of the selling stockholders (i) acquires additional shares of our common stock or other securities or (ii) sells or otherwise disposes of shares of our common stock or other securities held by such selling stockholders as of the date hereof and not offered hereby.
- (5) Anson Advisors Inc. and Anson Funds Management LP are the co-investment advisers of Anson Investments Master Fund LP, and, in such capacity, may be deemed to have voting and dispositive power over the securities held for the account of Anson Investments Master Fund LP. Bruce Winson is the managing member of Anson Management GP LLC, which is the general partner of Anson Funds Management LP. Moez Kassam and Amin Nathoo are directors of Anson Advisors Inc. Messrs. Winson, Kassam and Nathoo each disclaim beneficial ownership of this common stock, except to the extent of their pecuniary interest therein. The principal business address of Anson Investments Master Fund LP is Walkers Corporate Limited, Cayman Corporate Centre, 27 Hospital Road, George Town, Grand Cayman KY1-9008, Cayman Islands.
- (6) Armistice Capital, LLC is the investment manager of Armistice Capital Master Fund Ltd. and Steven Boyd is the managing member of Armistice Capital, LLC, and, in such capacity, Armistice Capital, LLC and Steven Boyd may be deemed to have voting and dispositive power over the securities held for the account of Armistice Capital Master Fund Ltd. Armistice Capital, LLC and Steven Boyd disclaim beneficial ownership of the reported securities, except to the extent of his or its pecuniary interest therein. The address for Armistice Capital, LLC is 501 Madison Avenue, 7th Floor, New York, NY 10022.
- (7) Mitchell P. Kopin and Daniel B. Asher, are each managers of Intracoastal Capital LLC, and, in such capacity, may be deemed to have voting and dispositive power over the securities held for the account of Intracoastal Capital LLC. The address for Intracoastal Capital LLC is 2211A Lakeside Drive, Bannockburn, IL 60015.

PLAN OF DISTRIBUTION

Each selling stockholder of the shares of common stock and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of our common stock included in the registration statement of which this prospectus is a part, on The Nasdaq Capital Market or any other stock exchange, market or trading facility on which the shares of common stock are traded or in private transactions. These sales may be in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at negotiated prices. The selling stockholders may sell such shares directly or through one or more underwriters, broker-dealers or agents. If the shares of our common stock are sold through underwriters or broker-dealers, the selling stockholders will be responsible for underwriting discounts or commissions or agent's commissions.

A selling stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchases;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the selling stockholder to sell a specified number of such shares at a stipulated price per share;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may also resell all or a portion of the shares of common stock under Rule 144 under the Securities Act or any other exemption from registration, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of our common stock, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121.

In connection with the sale of the shares of common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares of common stock in the course of hedging the positions they assume. The selling stockholders may also sell common stock short and deliver these shares of common stock to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these shares of common stock. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institutions of shares of common stock offered by this prospectus, which shares of common stock such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling stockholders may pledge or grant a security interest in some or all of the June 2020 Warrants or shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or other applicable provision of the Securities Act, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer and donate the shares of common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders and any broker-dealers or agents that are involved in selling the shares of common stock may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares of common stock purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the shares of common stock and that there is no underwriter or coordinating broker acting in connection with the proposed sale of the shares of common stock offered hereby by the selling stockholders.

We will pay all fees and expenses of the registration of the shares of common stock, estimated to be approximately \$65,000 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or “blue sky” laws; provided, however, that a selling stockholder will pay all underwriting discounts and selling commissions, if any.

The common stock offered hereby will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in some states the shares of common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the shares of common stock offered hereby may not simultaneously engage in market making activities with respect to the shares of common stock for the applicable restricted period, as defined by Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the shares of common stock by the selling stockholders or any other person.

Once sold under the registration statement, of which this prospectus forms a part, the shares of common stock will be freely tradable in the hands of persons other than our affiliates.

DESCRIPTION OF COMMON STOCK TO BE REGISTERED

We are authorized to issue 141,428,571 shares of common stock, par value \$0.001 per share. On July 1, 2020, we had 7,811,103 shares of common stock outstanding and approximately 202 stockholders of record. In this offering, the selling stockholders are offering up to 873,852 shares of our common stock they may acquire upon the exercise of June 2020 Warrants.

The following summary of certain provisions of our common stock does not purport to be complete. You should refer to our articles of incorporation and our bylaws, both of which are included as exhibits to the registration statement of which this prospectus is a part. The summary below is also qualified by provisions of applicable law.

General

Dividends. The holders of outstanding shares of common stock are entitled to receive dividends out of assets or funds legally available for the payment of dividends of such times and in such amounts as the board from time to time may determine.

Voting. Holders of common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. There is no cumulative voting of the election of directors then standing for election.

Pre-emptive Rights, Redemption, Conversion and Sinking Fund Provisions. The common stock is not entitled to pre-emptive rights and is not subject to conversion, redemption or sinking fund provisions.

Liquidation Rights. Upon liquidation, dissolution or winding up of our Company, the assets legally available for distribution to stockholders are distributable ratably among the holders of the common stock after payment of liquidation preferences, if any, on any outstanding payment of other claims of creditors. Each outstanding share of common stock is duly and validly issued, fully paid and non-assessable.

Transfers. There are no restrictions on the transfer of our common stock except such restrictions as may be imposed by applicable securities laws.

Description of Outstanding June 2020 Warrants to Purchase Shares of Common Stock pursuant to which the Offered Shares of Common Stock May Be Issued

The following description summarizes the material terms and provisions of the June 2020 Warrants. As of July 1, 2020, there were 873,852 June 2020 Warrants outstanding to purchase shares of common stock. The June 2020 Warrants were immediately exercisable on June 10, 2020 and remain exercisable until the 5.5-year anniversary of their date of issuance, but not thereafter. The June 2020 Warrants are exercisable at an exercise price of \$5.18 per share, which exercise price in each case, along with the number of shares of common stock issuable upon the exercise of such warrants, will be subject to adjustment for stock splits, reverse splits, stock dividends, and similar capital transactions as described in the June 2020 Warrants. A holder of June 2020 Warrants will have the right to exercise such warrants on a “cashless” basis if at the time of exercise, there is no effective registration statement registering, or no current prospectus available for, the resale of the shares of common stock underlying the June 2020 Warrants by the holder. A holder of June 2020 Warrants will not have the right to exercise any portion of its June 2020 Warrants if the holder, together with its affiliates, would beneficially own in excess of 4.99% (or 9.99% at the investor’s election), of the number of our shares of our common stock outstanding immediately after giving effect to such exercise; provided, however, that upon at least 61 days prior notice to us, a holder may increase or decrease such limitation up to a maximum of 9.99% of the number of shares of common stock outstanding.

Holders of the June 2020 Warrants have the right to participate in any rights offering, dividend or distribution of assets together with the holders of our common stock on an as-exercised basis.

Transfer Agent and Registrar

The transfer agent and registrar for our shares of common stock is VStock Transfer, LLC. Its address is 18 Lafayette Place, Woodmere, New York 11598 and its telephone number is (212) 828-8436.

Trading Market

Our shares of common stock are listed on The Nasdaq Capital Market under the symbol “EKSO.”

LEGAL MATTERS

The validity of the common stock offered by this prospectus will be passed upon for us by Snell & Wilmer L.L.P., San Francisco, California.

EXPERTS

OUM & Co. LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2019, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on OUM & Co. LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement under the Securities Act that registers the securities offered hereby. The registration statement, including the exhibits and schedules attached thereto and the information incorporated by reference therein, contains additional relevant information about the securities and our company, which we are allowed to omit from this prospectus pursuant to the rules and regulations of the SEC. In addition, we file annual, quarterly and other reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can also be accessed free of charge through the Internet. These filings will be available free of charge as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

We maintain a web site at www.eksobionics.com. Information contained on our website is neither incorporated by reference into this prospectus nor a part hereof or any other document we file with or furnish to the SEC.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus certain information contained in other documents and reports that we file with it, which means that we can disclose important information to you by referring you to such documents and reports. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede information contained in this prospectus. We incorporate by reference the documents listed below that we have previously filed with the SEC (excluding any portions of any Form 8-K that are not deemed “filed” pursuant to the General Instructions of Form 8-K):

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 filed with the SEC on [February 27, 2020](#), and amended on Form 10-K/A filed with the SEC on [April 28, 2020](#);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2020, filed with the SEC on [April 30, 2020](#);
- our Current Reports on Form 8-K, filed with the SEC on [January 10, 2020](#) (Item 8.01 only), [January 22, 2020](#), [March 18, 2020](#), [March 24, 2020](#), [April 1, 2020](#), [April 24, 2020](#), [May 15, 2020](#), [June 10, 2020](#), and [June 15, 2020](#); and
- the description of our common stock contained in Exhibit 4.9 on Form 10-K as filed with the SEC on [February 27, 2020](#), and any further amendment or report filed hereafter for the purpose of updating such description pursuant to Section 12(b) of the Exchange Act.

We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date hereof but prior to the completion or termination of the offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information deemed furnished and not filed with the SEC. Any statements contained in a previously filed document incorporated by reference into this prospectus is deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

As explained above in “Where You Can Find More Information,” these incorporated documents (as well as other documents filed by us under the Exchange Act) are available at the SEC and may be accessed online via the Internet.

We will provide without charge to each person, including any beneficial owner, to whom a prospectus is delivered, upon written or oral request of that person, a copy of any or all of the documents we are incorporating by reference into this prospectus, other than exhibits to those documents unless such exhibits are specifically incorporated by reference into those documents. Such written requests should be addressed to:

Ekso Bionics Holdings, Inc.
1414 Harbour Way South, Suite 1201
Richmond, California 94804
United States of America
Attn: Investor Relations
(510) 984-1761

The documents incorporated by reference may be accessed at our website at www.eksobionics.com. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.



Ekso Bionics Holdings, Inc.

**873,852 Shares of Common Stock
Issuable upon Exercise of Warrants**

PROSPECTUS

July 13, 2020
